

REMARKS

The Examiner rejected claims 1, 2, 5, 9-11, 12, 15, 19, 20-22, 25, 29 and 30 under 35 U.S.C. § 102(e) as allegedly being anticipated by Myers Jr. *et al.*, U.S. Pat. 6,959,268.

The Examiner rejected claims 3, 4, 6-8, 13, 14, 16-18, 23, 24, 26-28 and 31-36 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Myers Jr. *et al.* as applied to claims 1, 2, 5, 9-11, 12, 20-22, 25, 29 and 30 above, in view of the *Microsoft Computer Dictionary Fifth Edition*, Microsoft Press, 2002, hereafter *Microsoft*.

Applicants respectfully traverse the § 102 and § 103 rejections with the following arguments.

35 U.S.C. § 102(e)

The Examiner rejected claims 1, 2, 5, 9-11, 12, 15, 19, 20-22, 25, 29 and 30 under 35 U.S.C. § 102(e) as allegedly being anticipated by Myers Jr. *et al.*, U.S. Pat. 6,959,268.

Applicants respectfully contend that Myers Jr. does not anticipate claims 1, 11, and 21, because Myers Jr. does not teach each and every feature of claims 1, 11, and 21. Applicants have summarized the Examiner's of claims 1, 11, and 21 in Table 1 *infra*. Applicants respectfully point out the following problems with the Examiner's analysis summarized in Table 1.

Table 1 (Examiner's Analysis of Claims 1, 11, 21)

Method Step	#	Claimed Feature	Myers Jr. (as argued by Examiner)
accessing technical metadata	1	technical metadata	database schema of product model 231 (Fig. 2)
	2	data warehouse	database 407 (Fig. 4) plus Information Management Services (DBMS) 221 (Fig. 2)
	3	computer applications	tools 401, 403, 405 (Fig. 4)
	4	computer applications supporting business processes of business model	"FIG. 4 shows another conceptual view of the interaction between domain areas and the database, or integrated product data environment (IPDE) within the CEE" (col. 7, lines 7-34)
accessing business metadata	5	business metadata (from first source)	Information Transformation Services 211 (Fig. 2) from first source 211
	6	data warehouse	225 (Fig. 2)
	7	business metadata comprising relationships between the business processes and the computer applications	Fig. 4 (tools 402 and 404 access data in database 407)
	8	business metadata further comprising relationships between the computer applications and the technical metadata	"The information transformation services layer 211 acts as a bidirectional link between the user interface and the populated CEE database" (col. 6, lines 21-57; Fig. 2)

Method step	#	Claimed Feature	Myers Jr. (as argued by Examiner)
accessing presentation metadata	9	presentation metadata	web reference indicated by col. 10, line 47 - col. 11, line 21 ("This presentation tier is implemented on the client-side and contains the appropriate domain user interface(s) and may contain a variety of client-side domain tools")
	10	second source	database tier 621 (Fig. 6) independent of first source 611
	11	presentation format	presentation tier 601 (Fig. 6) and "presentation structured for the appropriate domain"
	12	said presentation metadata specifying a presentation format of the technical metadata and business metadata	col. 5, line 44 - col. 6, line 2 ("members interact with the CEE through familiar web interfaces and engineering tools with the presentation structured for the appropriate domain") and Fig. 6, Client Side 601)
	13	information catalog comprising the technical metadata and the business metadata in accordance the presentation metadata	Fig. 7 and col. 12, lines 1-9, "the tabs 30 and buttons 31 at the top of the page represent a two-level hierarchical view of the information structure. The tabs 30 represent high level categories. Each tab has a set of buttons 31 or menus providing the next lower level breakdown. The 'home' tab 32 contains some of the most basic information categories, such as the 'process page' 33, as shown in the body frame"..
applying the presentation metadata	14	applying the presentation metadata to the technical metadata and the business metadata to generate the information catalog	Fig. 7 shows an interface, i.e. an "applying", of the "presentation metadata", i.e. 601, to the "business metadata", i.e. 611, and the "technical metadata", i.e. 621, of Fig. 6)
displaying a graphical interface	15	displaying, on an output device for an end user, a graphical interface representing the generated information catalog.	Figs. 7 and 8

A first problem with the Examinee's analysis summarized in Table 1 *supra* is #5, because the Information Transformation Services 211 in Fig. 2 of Myers Jr. cannot represent the claimed business metadata. "Metadata" is "data that provides information about other data" (see Merriam-Webster's Online Dictionary at <http://www.m-w.com/dictionary/metadata>), which is reflects how the word "metadata" is used by persons of ordinary skill in the art. Myers Jr., col. 6, lines 45-48 teaches that "[t]he information transformation services layer 211 acts as a bidirectional link between the user interface and the populated CEE database" and does not teach that the bidirectional link 211 is business metadata. Applicants maintain that it is not inherent that the bidirectional link 211 is business metadata.

A second problem with the Examinee's analysis summarized in Table 1 *supra* is #4, #7, and #5 in combination.

From #4, the Examiner argues that the tools 402, 404, etc, support business processes associated with engineering domain 401, software engineering 403, and hardware engineering 405. From #7, the Examiner argues that the business metadata includes the relationship of accessing data by the tools 402, 404, etc. from the database 407. However, the claimed relationship (accessing data) is between the business processes (401, 403, 405 from #4) and the computer applications (402, 404) and not between the tools 402, 404 and the database 407. Therefore, the Examiner's arguments in #4 and #7 conflict with each other.

Furthermore, #7 requires that the business metadata include the relationship of accessing from the database 407 which comprises the product model and therefore relates to the product model of the database containing the technical metadata 231 (see #1) of Fig. 2. However from

#5, the business metadata is the bidirectional link 211 of accessing data between the technical metadata 231 and the user interface 201, which conflicts with #7 which requires accessing data between the database 407 (equivalent to 231 via #1) and business processes 401, 403, 405. Therefore, the Examiner's arguments in #5 and #7 conflict with each other.

A third problem with the Examiner's analysis summarized in Table 1 *supra* is #8, because from #5 the business metadata is the bidirectional link 211 between the user interface 201 and the technical metadata 231 (see Fig. 2), which conflicts with #8 requiring the business metadata (the bidirectional link 211) to comprise the claimed relationship between the computer applications (tools 401, 403, 405 from #3) and the technical metadata (231 from #1).

A fourth problem with the Examiner's analysis summarized in Table 1 *supra* is #9 and #10.

First, no presentation metadata is depicted in Fig. 6 or disclosed in col. 10, line 47 - col. 11, line 21. Applicants acknowledge that presentation metadata must exist in order to support the tables in database 622, but Myers Jr. does not teach where the presentation metadata is located. Applicants assert that the presentation metadata does not inherently exist in the presentation tier 601. Therefore Myers Jr. does not teach that presentation metadata is accessed from a source independent of the first source.

Second, there is no disclosure in Myers Jr. that the presentation metadata is accessed from a second source outside of the data warehouse 407 (see #6). As explained *supra*, Myers Jr. does not explicitly or inherently teach where the presentation metadata is located.

Third, the Examiner's argument in #10 that the first source is 611 conflicts with the Examiner's argument in #5 that the first source is 211.

A fifth problem with the Examiner's analysis summarized in Table 1 *supra* is #12, because col. 5, line 44 - col. 6, line 2 does not explicitly or inherently teach that the presentation metadata (which is not specifically identified in Myers Jr. as explained *supra*) specifies a presentation format of the technical metadata 231 in Fig. 2 (see #1) and the business metadata 211 in Fig. 2 (see #5).

A sixth problem with the Examiner's analysis summarized in Table 1 *supra* is #13, because col. 12, lines 1-9 does not teach that Fig. 7 is not an information catalog comprising the technical metadata 231 in Fig. 2 (see #1) and the business metadata 211 in Fig. 2 (see #5).

A seventh problem with the Examiner's analysis summarized in Table 1 *supra* is #14, because Myers Jr. does not teach that the presentation metadata 601 (alleged but not proved) is applied to the technical metadata 621 and the business metadata 611 to generate the home page user interface of Fig. 7.

In addition, the Examiner's argument in #14 that the technical metadata is 621 and the business metadata is 611 conflicts with the Examiner's argument in #1 and #5 that the technical metadata is 231 and the business metadata is 211, respectively.

An eighth problem with the Examiner's analysis summarized in Table 1 *supra* is #15.

First, Fig. 8 is not a display on an output device for an end user, but is rather a conceptual illustration of the product catalog in the patent Figures (see Myers Jr., col. 16, lines 34-40). Second, Myers Jr. does not anywhere teach that the home page user interface of Fig. 7 is the generated information catalog that is generated by applying the presentation metadata to the technical metadata and the business metadata.

Based on the preceding arguments, Applicant respectfully contends that Myers Jr. does not anticipate claims 1, 11, and 21, and that claims 1, 11, and 21 are in condition for allowance. Since claims 2, 5, 9 and 10 depend from claim 1, Applicants contend that claims 2, 5, 9 and 10 are likewise in condition for allowance. Since claims 12, 15, 19 and 20 depend from claim 11, Applicants contend that claims 12, 15, 19 and 20 are likewise in condition for allowance. Since claims 22, 25, 29 and 30 depend from claim 21, Applicants contend that claims 22, 25, 29 and 30 are likewise in condition for allowance.

In addition with respect to claims 2, 12, and 22, Myers Jr. does not teach the feature: “wherein prior to the applying step the method further comprises parsing the technical metadata and the business metadata to form a source tree such that the source tree comprises the parsed business metadata and parsed technical metadata logically linked to each other”.

The Examiner argues: “See e.g. Fig. 8 where, see col. 16, lines 34-53, “The product catalog 80 consists of all parts 81 that may be shared at the enterprise level. These parts may include both leaf-level parts 82, such as RAM memory chips, as well as complex assembly parts 83 and 84””.

In response, Applicants maintain that see col. 16, lines 34-53 does not teach that the parts 81 in Fig. 8 comprise the parsed business metadata (bidirectional link 211 from #5 of Table 1) and parsed technical metadata (231 from #1 of Table 1) logically linked to each other.

Therefore, claims 2, 12, and 22 are not anticipated by Myers Jr.

In addition with respect to claims 2, 12, and 22, Myers Jr. does not teach the feature: “wherein the applying step comprises traversing the source tree to form a result tree that includes the logically linked technical metadata and business metadata integrated with the presentation metadata”.

The Examiner argues: “See e.g. Fig. 9 where, see col. 19, lines 30-57, “suppose the product being designed is a display workstation. Since the product does not exist yet and is possibly unique to this project, the first part defined by the engineer would be a hardware (F1W) part 41 characterizing that product. Suppose that a necessary component of this workstation is a processing unit. The engineer searches the product catalog for a processing unit that fits his requirements constraints. Searching can be accomplished through either a full text search of information describing the part or through exercise of a search engine managing collections of customized descriptive information””.

In response, Applicants maintain that Fig. 9 and col. 19, lines 30-57 does not teach that the result tree (alleged to be depicted in Fig. 9) includes the logically linked technical metadata (231 from #1 of Table 1) and business metadata (bidirectional link 211 from #5 of Table 1) integrated with the presentation metadata (not specifically disclosed in Myers Jr.).

Therefore, claims 2, 12, and 22 are not anticipated by Myers Jr.

In addition with respect to claims 2, 12, and 22, Myers Jr. does not teach the feature: “wherein the method further comprises transforming the result tree into the information catalog such that the information catalog comprises files formatted in accordance with the presentation metadata”.

The Examiner argues: “See e.g. col. 12, line 54 to col. 13, line 3, "This was facilitated by use of the Windchill™ tool's dynamic HTML generation. mechanisms. When a user requests an HTML page via the browser, the hyperlink points to a template for the actual page that will be returned. The template contains Windchill™ tool 'script' calls that get replaced with dynamically generated HTML””.

In response, Applicants maintain that the text of col. 12, line 54 - col. 13, line 3 does not teach transforming the result tree (alleged to be depicted in Fig. 9) into the information catalog (Fig. 7 from #13 of Table 1) such that the information catalog (Fig. 7) comprises files formatted in accordance with the presentation metadata (not specifically disclosed in Myers Jr.).

Therefore, claims 2, 12, and 22 are not anticipated by Myers Jr.

35 U.S.C. § 103(a)

The Examiner rejected claims 3, 4, 6-8, 13, 14, 16-18, 23, 24, 26-28 and 31-36 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Myers Jr. *et al.* as applied to claims 1, 2, 5, 9-11, 12, 20-22, 25, 29 and 30 above, in view of the *Microsoft Computer Dictionary Fifth Edition*, Microsoft Press, 2002, hereafter *Microsoft*.

Claims 3, 4, 6-8, 13, 14, 16-18, 23, 24, and 26-28

Since claims 3, 4, and 6-8 depend from claim 1, which Applicants have argued *supra* to not be unpatentable over Myers Jr. under 35 U.S.C. §102(b), Applicants maintain that claims 3, 4, and 6-8 are likewise not unpatentable over Myers Jr. in view of *Microsoft* under 35 U.S.C. §103(a).

Since claims 13, 14, and 16-18 depend from claim 11, which Applicants have argued *supra* to not be unpatentable over Myers Jr. under 35 U.S.C. §102(b), Applicants maintain that claims 13, 14, and 16-18 are likewise not unpatentable over Myers Jr. in view of *Microsoft* under 35 U.S.C. §103(a).

Since claims 23, 24, and 26-28 depend from claim 21, which Applicants have argued *supra* to not be unpatentable over Myers Jr. under 35 U.S.C. §102(b), Applicants maintain that claims 23, 24, and 26-28 are likewise not unpatentable over Myers Jr. in view of *Microsoft* under 35 U.S.C. §103(a).

In addition with respect to claims 3, 13, and 23, Myers Jr. in view of *Microsoft* does not teach or suggest the feature: “wherein traversing the source tree comprises traversing the source

tree in accordance with a recursive descent algorithm”.

The Examiner argues: “As per claims 3, 13, and 23, Myers, Jr. et al. disclose the subject matter of the claims upon which the instant claims depend, but do not appear to disclose traversing the source tree with a "recursive descent algorithm". However, *Microsoft* does make such a disclosure, see e.g. Recursion, "The ability of a routine to call itself. Myers, Jr. et al. and *Microsoft* are analogous art because they both discuss electronic data manipulations. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Myers, Jr. et al. and *Microsoft* before him or her to traverse the source tree recursively. The motivation for combining these features is found in *Microsoft*, see e.g. Recursion, "Recursion enables certain algorithms to be implemented with small, simple routines".”

In response, Applicants respectfully contend that *Microsoft* merely discloses recursive programming (as the Examiner indicates) which is not a disclosure of a recursive descent algorithm specifically. Since neither Myers Jr. nor *Microsoft* discloses a recursive descent algorithm, Applicants maintain that the Examiner has not presented a *prima facie* case of obviousness in relation to claims 3, 13, and 23.

Moreover, the Examiner has argued that the claimed source tree is represented by Fig. 8 of Myers Jr, and that traversing the source tree generates a result tree as represented by Fig. 9 of Myers Jr. However, the Examiner has not explained how a recursive descent algorithm could be used to traverse the alleged source tree of Fig. 8 to generate the alleged result tree of Fig. 9. In other words, the Examiner has not demonstrated enablement for use of a recursive descent algorithm to traverse the alleged source tree of Fig. 8 to generate the alleged result tree of Fig. 9.

Therefore, claims 3, 13, and 23 are not unpatentable over Myers Jr. in view of *Microsof*.

Claims 31-36

Applicants respectfully contend that claim 31 is not unpatentable over Myers Jr. in view of *Microsoft* because Myers Jr. in view of *Microsoft* does not teach or suggest each and every feature of claim 31.

As a first example of why claim 31 is not unpatentable over Myers Jr. in view of *Microsoft*, Myers Jr. in view of *Microsoft* does not teach or suggest the feature: “said method comprising generating the information catalog by applying presentation metadata to technical metadata and business metadata such that the information catalog comprises the technical metadata and the business metadata in accordance with a presentation format specified by the presentation metadata”.

With respect to the aforementioned feature in the first example, the Examiner relies on Myers.

In response, Applicants rely on Applicants’ arguments presented *supra* with respect to #14 of Table 1 in relation to claims 1, 11, and 21.

As a second example of why claim 31 is not unpatentable over Myers Jr. in view of *Microsoft*, Myers Jr. in view of *Microsoft* does not teach or suggest the feature: “a package list frame, an object list frame driven by the package list frame, and a detail frame driven by the object list frame ... said package list frame comprising means for selecting applications of said

computer applications and associated table creators of tables relating to the technical metadata; said object list frame comprising means for selecting tables driven by a computer application and associated table creator selected from the package list frame; said detail frame comprising means for displaying table information relating to a table selected from the object list frame”.

Although the Examiner cites *Microsoft* for displaying contents of one or more HTML documents in frames, the Examiner has not cited any prior art that allegedly teaches or suggests the specific frames claimed (package list frame, object list frame, detail frame) subjected to the claimed limitations on these specific frames (i.e., “said package list frame comprising means for selecting applications of said computer applications and associated table creators of tables relating to the technical metadata; said object list frame comprising means for selecting tables driven by a computer application and associated table creator selected from the package list frame; said detail frame comprising means for displaying table information relating to a table selected from the object list frame”).

Moreover, the Examiner has not presented any argument in support of the Examiner’s contention that Myers Jr. in view of *Microsoft* teaches or suggests the specific frames claimed (package list frame, object list frame, detail frame) subjected to the claimed limitations on these specific frames. Therefore, the Examiner has not presented a *prima facie* case of obviousness in relation to claim 31.

Based on the preceding arguments, Applicant respectfully contends that claim 31 is not unpatentable over Myers Jr. in view of *Microsoft*, and that claim 31 is in condition for allowance. Since claims 32-36 depend from claim 31, Applicants contend that claims 32-36 are

likewise in condition for allowance.

In addition with respect to claim 32, Myers Jr. in view of *Microsoft* does not teach or suggest the feature: “wherein the table information is an overview of the business model”.

The Examiner has not presented any argument in support of the Examiner’s contention that Myers Jr. in view of *Microsoft* teaches or suggests the preceding feature of claim 32.

Therefore, the Examiner has not presented a *prima facie* case of obviousness in relation to claim 32.

In addition with respect to claim 33, Myers Jr. in view of *Microsoft* does not teach or suggest the feature: “wherein the overview includes processes of the business processes”.

The Examiner has not presented any argument in support of the Examiner’s contention that Myers Jr. in view of *Microsoft* teaches or suggests the preceding feature of claim 33.

Therefore, the Examiner has not presented a *prima facie* case of obviousness in relation to claim 33.

In addition with respect to claim 34, Myers Jr. in view of *Microsoft* does not teach or suggest the feature: “wherein the overview includes applications of the computer applications”.

The Examiner has not presented any argument in support of the Examiner’s contention that Myers Jr. in view of *Microsoft* teaches or suggests the preceding feature of claim 34.

Therefore, the Examiner has not presented a *prima facie* case of obviousness in relation to claim 34.

In addition with respect to claim 35, Myers Jr. in view of *Microsoft* does not teach or suggest the feature: “wherein the package list frame, object list frame, and a detail frame are generated by execution of files of the information catalog”.

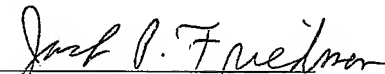
The Examiner has not presented any argument in support of the Examiner’s contention that Myers Jr. in view of *Microsoft* teaches or suggests the preceding feature of claim 35.

Therefore, the Examiner has not presented a *prima facie* case of obviousness in relation to claim 35.

CONCLUSION

Based on the preceding arguments, Applicants respectfully believe that all pending claims and the entire application meet the acceptance criteria for allowance and therefore request favorable action. If the Examiner believes that anything further would be helpful to place the application in better condition for allowance, Applicants invites the Examiner to contact Applicants' representative at the telephone number listed below. The Director is hereby authorized to charge and/or credit Deposit Account 09-0457.

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